Listing of the Claims:

1.   (Currently Amended) An application program interface (API) embodied on one or more computer readable media, comprising:

a first group of services ~~related to~~ <u>for</u> integrating content repositories into virtual content repositories (VCRs) <u>such that they appear and behave as a single content repository</u>;

a second group of services ~~related to~~ <u>for</u> manipulating information in VCRs;

a third group of services ~~related to~~ <u>for</u> searching VCRs; <u>and</u>

a forth group of services ~~related to~~ <u>for</u> configuring VCRs; ~~and~~

wherein the application program interface is compatible with a content repository service provider interface (SPI).

2.   (Original) The application program interface of claim 1 wherein:

the SPI provides a subset of the services available in the API.

3.   (Currently Amended) The application program interface of claim 1 wherein the first group of services comprises:

first functions ~~to enable~~ <u>for</u> authorizing access to content repositories; and

second functions ~~to enable~~ <u>for</u> incorporating content repositories into a hierarchical namespace; and

third functions ~~to enable~~ <u>for</u> extending a VCR content model to represent information in content repositories.

4.   (Original) The application program interface of claim 3 wherein:

authorizing access to content repositories includes providing authentication information to repositories and receiving authentication results from content repositories.

5.   (Original) The application program interface of claim 3 wherein:

authorizing access to content repositories utilizes Java Authentication and Authorization Service.

6.   (Original) The application program interface of claim 3 wherein:

incorporating content repositories into a hierarchical namespace includes representing content repositories as nodes under a single VCR root node.

- 2 -

7.   (Original) The application program interface of claim 3 wherein:

extending a VCR content model to represent information in content repositories includes sharing a common representation of content between the API and the SPI.

8.   (Withdrawn) The application program interface of claim 1, wherein the second group of services comprises:

first functions that enable creation of information in VCRs;

second functions that enable reading of information from VCRs;

third functions that enable updating of information in VCRs;

fourth functions that enable deleting of information in VCRs;

wherein information in VCRs maps to information in one or more content repositories; and

wherein information can be contents and/or schemas.

9.   (Withdrawn) The application program interface of claim 1, wherein the third group of services comprises:

first functions that enable searching content information in VCRs;

second functions that enable searching schema information in VCRs; and

third functions that enable configuring search result caches.

10.   (Withdrawn) The application program interface of claim 9 wherein:

searching content information in VCRs includes searching content repositories.

11.   (Withdrawn) The application program interface of claim 9 wherein:

searching schema information in VCRs includes searching content repositories.

12.   (Withdrawn) The application program interface of claim 9 wherein:

configuring search result caches includes at least one of: 1) setting the time to live for cache entries; and 2) setting the maximum number of cache entries.

13.   (Withdrawn) The application program interface of claim 1, wherein the fourth group of services comprises:

first functions that enable configuring repository caches; and

second functions that enable configuring authorization information for content repositories.

- 3 -

14.   (Withdrawn) The application program interface of claim 13 wherein:

configuring repository caches includes at least one of: 1) turning a cache on or off; 2) setting the maximum number of entries for a cache; and 3) setting the time to live for cache items.

15.   (Withdrawn) The application program interface of claim 13 wherein:

configuring authorization information for content repositories includes at least one of: 1) setting a password and user name for a repository; and 2) setting a read-only attribute for a repository.

16.   (Withdrawn) A network software architecture comprising the API as recited in claim 1.

17.   (Currently Amended) A system comprising:

means for providing a first group of services ~~related to~~ for integrating content repositories into a virtual content repository (VCR) such that they appear and behave as a single content repository;

means for providing a second group of services ~~related to~~ for manipulating information in the VCR;

means for providing a third group of services ~~related to~~ for searching the VCR; and

means for providing a forth group of services ~~related to~~ for configuring the VCR.

18.   (Currently Amended) A software architecture for a distributed computing system, comprising:

a first application configured to handle requests provided to it by a second application over a network; and

an application program interface (API) to provide functions used by the first application to access a virtual content repository (VCR), wherein the API includes: ~~and~~

a first group of services for integrating content repositories into virtual content repositories (VCRs),

a second group of services for manipulating information VCRs,

a third group of services for searching VCRs, and

a forth group of services for configuring VCRs,

wherein the API is compatible with a content repository service provider interface (SPI);

wherein the VCR integrates a plurality of content repositories such that they appear and

- 4 -

behave as a single content repository.

19.   (Canceled).

20.   (Currently Amended) The software architecture of claim [[19]] 20 wherein:
       the SPI provides a subset of the services available in the API.

21.   (Currently Amended) The software architecture of claim [[19]] 20 wherein the first group
of services comprises:
       first functions to enable for authorizing access to content repositories; and
       second functions to enable for incorporating content repositories into a hierarchical
namespace; and
       third functions to enable for extending a VCR content model to represent information in
content repositories.

22.   (Original) The software architecture of claim 21 wherein:
       authorizing access to content repositories includes providing authentication information
to repositories and receiving authentication results from content repositories.

23.   (Original) The software architecture of claim 21 wherein:
       authorizing access to content repositories utilizes Java Authentication and Authorization
Service.

24.   (Original) The software architecture of claim 21 wherein:
       incorporating content repositories into a hierarchical namespace includes representing
content repositories as nodes under a single VCR root node.

25.   (Original) The application program interface of claim 21 wherein:
       extending a VCR content model to represent information in content repositories includes
sharing a common representation of content between the API and the SPI.

26.   (Withdrawn) The software architecture of claim 19 wherein the second group of services
comprises:
       first functions that enable creation of information in VCRs;

- 5 -

second functions that enable reading of information from VCRs;

third functions that enable updating of information in VCRs;

fourth functions that enable deleting of information in VCRs;

wherein information in VCRs maps to information in one or more content repositories; and

wherein information can be contents and/or schemas.

27.   (Withdrawn) The software architecture of claim 19 wherein the third group of services comprises:

first functions that enable searching content information in VCRs;

second functions that enable searching schema information in VCRs; and

third functions that enable configuring search result caches.

28.   (Withdrawn) The software architecture of claim 27 wherein:

searching content information in VCRs includes searching content repositories.

29.   (Withdrawn) The software architecture of claim 27 wherein:

searching schema information in VCRs includes searching content repositories.

30.   (Withdrawn) The software architecture of claim 27 wherein:

configuring search result caches includes at least one of: 1) setting the time to live for cache entries; and 2) setting the maximum number of cache entries.

31.   (Withdrawn) The software architecture of claim 19, wherein the fourth group of services comprises:

first functions that enable configuring repository caches; and

second functions that enable configuring authorization information for content repositories.

32.   (Withdrawn) The software architecture of claim 31 wherein:

configuring repository caches includes at least one of: 1) turning a cache on or off; 2) setting the maximum number of entries for a cache; and 3) setting the time to live for cache items.

- 6 -

33.   (Withdrawn) The software architecture of claim 31 wherein:

configuring authorization information for content repositories includes at least one of: 1) setting a password and user name for a repository; and 2) setting a read-only attribute for a repository.

34.   (Currently Amended) A method for providing a virtual content repository (VCR) representing a plurality of ~~at least one~~ content repositories ~~repository~~ such that they appear and behave as a single content repository, comprising:

providing an application program interface (API), wherein the API includes: [[;]]

a first group of services for integrating the plurality of content repositories into the VCR,

a second group of services for manipulating information VCRs,

a third group of services for searching VCRs, and

a forth group of services for configuring VCRs,

wherein the application program interface is compatible with a content repository service provider interface; and

providing a service provider interface (SPI) to be implemented by the plurality of ~~at least one~~ content repositories ~~repository; and~~

wherein the API and the SPI are compatible and share a common content model and a common namespace.

35.   (Original) The method of claim 34 wherein the content model includes:

a set of hierarchically related objects.

36.   (Currently Amended) The method of claim 34 wherein the namespace makes addressable the content in the plurality of ~~at least one~~ content repositories ~~repository~~.

37.   (Original) The method of claim 34 wherein the API includes:

services for performing operations on the namespace and the content model.

38.   (Currently Amended) The method of claim 34 wherein the SPI includes:

services for merging contents of the plurality of ~~at least one~~ content repositories ~~repository~~ into the namespace and the content model.

- 7 -

39.   (Canceled).

40.   (Currently Amended) The method of claim [[39]] 34 wherein:
        the content repository service provider interface provides a subset of the services
available in the application program interface.

41.   (Currently Amended) The method of claim [[39]] 34 wherein the first group of services
comprises:
        first functions ~~that enable~~ for authorizing access to content repositories; and
        second functions ~~that enable~~ for incorporating content repositories into a hierarchical
namespace; and
        third functions ~~that enable~~ for extending a VCR content model to represent information in
content repositories.

42.   (Original) The method of claim 41 wherein:
        authorizing access to content repositories includes providing authentication information
to repositories and receiving authentication results from content repositories.

43.   (Original) The method of claim 41 wherein:
        authorizing access to content repositories utilizes Java Authentication and Authorization
Service.

44.   (Original) The method of claim 41 wherein:
        incorporating content repositories into a hierarchical namespace includes representing
content repositories as nodes under a single VCR root node.

45.   (Original) The method of claim 41 wherein:
        extending a VCR content model to represent information in content repositories includes
sharing a common representation of content between the application program interface and the
service provider interface.

46.   (Withdrawn) The method of claim 39 wherein the second group of services comprises:
        first functions that enable creation of information in VCRs;

- 8 -

second functions that enable reading of information from VCRs;

third functions that enable updating of information in VCRs;

fourth functions that enable deleting of information in VCRs;

wherein information in VCRs maps to information in one or more content repositories; and

wherein information can be contents and/or schemas.

47.   (Withdrawn) The method of claim 39 wherein the third group of services comprises:

first functions that enable searching content information in VCRs;

second functions that enable searching schema information in VCRs; and

third functions that enable configuring search result caches.

48.   (Withdrawn) The method of claim 47 wherein:

searching content information in VCRs includes searching content repositories.

49.   (Withdrawn) The method of claim 47 wherein:

searching schema information in VCRs includes searching content repositories.

50.   (Withdrawn) The method of claim 47 wherein:

configuring search result caches includes at least one of: 1) setting the time to live for cache entries; and 2) setting the maximum number of cache entries.

51.   (Withdrawn) The method of claim 39 wherein the fourth group of services comprises:

first functions that enable configuring repository caches; and

second functions that enable configuring authorization information for content repositories.

52.   (Withdrawn) The method of claim 51 wherein:

configuring repository caches includes at least one of: 1) turning a cache on or off; 2) setting the maximum number of entries for a cache; and 3) setting the time to live for cache items.

53.   (Withdrawn) The method of claim 51 wherein:

configuring authorization information for content repositories includes at least one of: 1) setting a password and user name for a repository; and 2) setting a read-only attribute for a repository.

54. (Currently Amended) A machine readable medium having instructions stored thereon that when executed by a processor cause a system to:

provide an application program interface (API), wherein the API includes:

a first group of services for integrating content repositories into virtual content repositories (VCR) such that they appear and behave as a single content repository,

a second group of services for manipulating information VCRs,

a third group of services for searching VCRs, and

a forth group of services for configuring VCRs,

wherein the application program interface is compatible with a content repository service provider interface;

provide a service provider interface (SPI) to be implemented by the a plurality of at least one content repositories repository; and

wherein the API and the SPI are compatible and share a common content model and a common namespace.

55. (Original) The machine readable medium of claim 54 wherein the content model includes:

a set of hierarchically related objects.

56. (Currently Amended) The machine readable medium of claim 54 wherein:

the namespace makes addressable the content in the plurality of at least one content repositories repository.

57. (Original) The machine readable medium of claim 54 wherein the API includes:

services for performing operations on the namespace and the content model.

58. (Currently Amended) The machine readable medium of claim 54 wherein the SPI includes:

services for merging contents of the plurality of at least one content repositories

- 10 -

~~repository~~ into the namespace and the content model.

59.   (Canceled).

60.   (Currently Amended) The machine readable medium of claim [[59]] 54 wherein:
        the content repository service provider interface provides a subset of the services
available in the application program interface.

61.   (Currently Amended) The machine readable medium of claim [[59]] 54 wherein the first
group of services comprises:
        first functions ~~that enable~~ for authorizing access to content repositories; and
        second functions ~~that enable~~ for incorporating content repositories into a hierarchical
namespace; and
        third functions ~~that enable~~ for extending a VCR content model to represent information in
content repositories.

62.   (Original) The machine readable medium of claim 61 wherein:
        authorizing access to content repositories includes providing authentication information
to repositories and receiving authentication results from content repositories.

63.   (Original) The machine readable medium of claim 61 wherein:
        authorizing access to content repositories utilizes Java Authentication and Authorization
Service.

64.   (Original) The machine readable medium of claim 61 wherein:
        incorporating content repositories into a hierarchical namespace includes representing
content repositories as nodes under a single VCR root node.

65.   (Original) The machine readable medium of claim 61 wherein:
        extending a VCR content model to represent information in content repositories includes
sharing a common representation of content between the application program interface and the
service provider interface.

66.   (Withdrawn) The machine readable medium of claim 59 wherein the second group of

- 11 -

services comprises:

first functions that enable creation of information in VCRs;

second functions that enable reading of information from VCRs;

third functions that enable updating of information in VCRs;

fourth functions that enable deleting of information in VCRs;

wherein information in VCRs maps to information in one or more content repositories; and

wherein information can be contents and/or schemas.

67. (Withdrawn) The machine readable medium of claim 59 wherein the third group of services comprises:

first functions that enable searching content information in VCRs;

second functions that enable searching schema information in VCRs; and

third functions that enable configuring search result caches.

68. (Withdrawn) The machine readable medium of claim 67 wherein:

searching content information in VCRs includes searching content repositories.

69. (Withdrawn) The machine readable medium of claim 67 wherein:

searching schema information in VCRs includes searching content repositories.

70. (Withdrawn) The machine readable medium of claim 67 wherein:

configuring search result caches includes at least one of: 1) setting the time to live for cache entries; and 2) setting the maximum number of cache entries.

71. (Withdrawn) The machine readable medium of claim 59 wherein the fourth group of services comprises:

first functions that enable configuring repository caches; and

second functions that enable configuring authorization information for content repositories.

72. (Withdrawn) The machine readable medium of claim 71 wherein:

configuring repository caches includes at least one of: 1) turning a cache on or off; 2) setting the maximum number of entries for a cache; and 3) setting the time to live for cache items.

73.   (Withdrawn) The machine readable medium of claim 71 wherein:

configuring authorization information for content repositories includes at least one of: 1) setting a password and user name for a repository; and 2) setting a read-only attribute for a repository.

74.   (Canceled).